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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/791,659	03/02/2004	Jason William Muller	FL/142	2699

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EXAMINER

PHAM, MINH CHAU THI

ART UNIT	PAPER NUMBER
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1724

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/19/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/791,659

Applicant(s)

MULLER ET AL.

Examiner

Minh-Chau T. Pham

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3, 4, 6-8, 10, 11, 14-33 and 35-57 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 4, 6-8, 10, 11, 14-33 and 35-57 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 3, 4, 6-8, 10, 11, 14-33 and 35-57 are again rejected under 35 U.S.C. 103(a) as being unpatentable over Riedy et al (5,108,474), in view of Schultheiss et al (2003/0000389 A1).

Riedy et al discloses a composite filter material for removal of particles from a fluid stream (col. 1, lines 5-14) comprising a membrane filtration layer comprising a porous polymeric membrane (13, col. 5, lines 13-57), at least one depth filtration media layer comprising fibers (11, col. 3, line 45 through col. 4, line 5) disposed on the upstream side of the membrane filtration member (13) wherein the membrane filtration layer comprising ePTFE (col. 5, lines 48-50). The composite filter media further comprising a support layer disposed on the downstream side of the membrane filtration layer (col. 5, lines 58-61) wherein the support layer is laminated to the membrane filtration layer (col. 6, lines 26-34). Riedy et al also disclose the membrane filtration layer and the depth filtration media layers can be pleated (see col. 10, lines 46-67-). Riedy et al further disclose a composite filter comprising a frame (41), a composite filter media (11-13) wherein the composite filter material is sealed in the frame with a potting material wherein the potting material is selected from the group of silicone, polyurethane, plastisol or the like (col. 6, lines 26-34). Riedy et al also disclose various air permeability ratings via tests of the composite filter material (see the whole document). Claims 1-17, 19, 21-36, 38-51 and 53-56 differ from the disclosure of Riedy

et al in that the claims call for the depth filtration media comprising fibers having an electrostatic charge. Schultheiss et al disclose a multi-layered air filter wherein the filter media comprising electrostatic charge (page 1, paragraph 0014 and 0015). It would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide a filter layer with electrostatic charge as taught by Schultheiss et al in the filter apparatus of Riedy et al since it is very well-known in the art that electrostatic charge is put ahead of the filter layers for simultaneous increase of the suction efficiency stability and the separation performance (see page 1, paragraph 0014).

Claims 7, 8, 10, 11, 14-33, 35-49 and 53 call for one additional depth filtration media layer. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide one or more layers of depth filtration media since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. St. Regis Paper Co. v. Bemis Co., 193 USPQ 8.

Claims 18, 20, 37, 52 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over in view of Riedy et al (5,108,474), in view of Schultheiss et al (2003/0000389 A1), as applied supra, and further in view of Frey (5,522,908).

Claims 18, 20, 37, 52 and 57 call for the filtration media comprising a pattern of perforations wherein the media layer is removable by tearing at the perforations. Frey discloses the filtration media (10, 38, 44) comprising a pattern of perforations (60, 62, 64) wherein the media layer is removable by tearing at the perforations (col. 5, lines 58-64). It would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide perforations for tearing as taught by Frey in the filter

apparatus of Riedy et al and Schultheiss et al since the perforations would provide easy access for removing the filtration media off the filter frame.

Response to Amendment

Applicant's arguments filed on October 6, 2006 have been fully considered but they are not persuasive.

Applicant argues that the primary reference "Riedy discloses 3 layers of filter construction consisting of a prefilter layer comprising non-woven glass, a protective foam layer and a membrane layer" while the instant application claims for "a meltblown filtration filter media layer having electrostatic charge is disposed directly on the upstream side of the membrane filtration layer". The Examiner respectfully disagrees. Riedy discloses a 3-layered filtration media (11, 12 and 13), however, Riedy discloses "if desired, the filter may consist of a nonwoven layer made from a polymeric material that is used to protect and/or support the microporous polymeric membrane layer" (see col. 5, lines 58-61, col. 7, lines 35-40, lines 46-53, col. 8, lines 49-51), as claimed. Clearly, Riedy discloses another embodiment that the media can comprise of 2-layered filtration media (11 and 13) only without the middle layer (12), wherein the upstream layer or prefilter can be made from meltblown material (see col. 3, lines 57-59) with various of thickness (see col. 3, lines 63-64) in the range of 0.08 to 0.13 mm (see col. 4, line 17) is disposed directly on the upstream side of the membrane filtration layer, as claimed.

The Examiner applies the secondary reference Schutheiss et al just to show a multi-layered air filter wherein the filter media comprising electrostatic charge (page 1,

paragraph 0014 and 0015). It would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide at least a filter layer with electrostatic charge as taught by Schultheiss et al in the filter apparatus of Riedy et al since it is very well-known in the art that electrostatic charge is put ahead of the filter layers for simultaneous increase of the suction efficiency stability and the separation performance (see page 1, paragraph 0014).

Applicant's arguments with respect to claims 1, 3, 4, 6-8, 10, 11, 14-33 and 35-57 have been thoroughly considered but are moot in view of the rejection, as discussed above.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh-Chau T. Pham whose telephone number is (571)

Art Unit: 1724

272-1163. The examiner can normally be reached on Mon/Tues/Thur/Fri 7:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Minh-Chau Pham
Patent Examiner
Art Unit : 1724
December 12, 2006